Amendments to the claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims

1. (Currently amended) A phthalocyanine colorant
represented by Formula (1):

(in Formula (1), wherein M represents a hydrogen atom, a metal atom, a metal oxide, a metal hydroxide, or a metal R_{14} each R_{10} , R_{11} , and R_{15} R_{6} R_{7} halide; R_2 , R_3 , independently represent an unsubstituted sulfamoyl group represented by Formula (2), a substituted sulfamoyl group represented by Formula (3), or a hydrogen atom, provided that at least one of $R_2,\ R_3,\ R_6,\ R_7,\ R_{10},\ R_{11},\ R_{14}$ and R_{15} is

an the unsubstituted sulfamoyl group represented by Formula (2), and at least one thereof is a the substituted sulfamoyl group represented by Formula (3); and R_1 , R_4 , R_5 , R_8 , R_9 , R_{12} , R_{13} and R_{16} represent hydrogen atoms; the sum of a number of an the unsubstituted sulfamoyl group and a number of a the substituted sulfamoyl group is 2 to 4, and a number of an the unsubstituted sulfamoyl group is 1 to 3 and a number of a the substituted sulfamoyl group is 1 to 3 and a number of a the substituted sulfamoyl group is 1 to 3.

(in Formula (3), wherein R₁₇ and R₁₈ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, and a substituted or unsubstituted heterocyclic group, and a substituted or unsubstituted alkenyl group; A represents an alkylene group having 1 to 4 carbon atoms a erosslinking group, and adjacent R₁₇, R₁₈ and A may form a ring by bonding

together; any one of Y and Z each independently represents a halogen atom, a hydroxyl group, a sulfonic acid group, a amino group, -- a -- substituted or earboxyl group, an unsubstituted alkoxy group, a substituted or unsubstituted eyeloalkyloxy group, a substituted or unsubstituted aryloxyl group, a substituted or unsubstituted heterocyclic oxy group, a substituted or unsubstituted alkenyloxy group, a substituted or unsubstituted or a C1 - C6 alkylamino group substituted with a sulfonic acid group or a carboxyl group and the other is a phenylamino group or a naphthylamino group substituted with a sulfonic acid group or a carboxyl group a substituted or unsubstituted cycloalkylamino group, a substituted or unsubstituted arylamino group, a substituted or unsubstituted heterocyclic amino group, a substituted or unsubstituted alkenylamino group, a substituted or unsubstituted dialkylamino group, a substituted or unsubstituted alkylthio group, a substituted or unsubstituted arylthio group, a substituted or unsubstituted heterocyclic thio group, a substituted or unsubstituted alkenylthio group, provided that at least one of Y and Z is a group having an ionic-and hydrophilic group as a substituent:].

2. (Currently amended) The phthalocyanine colorant according to Claim 1, wherein Formula (1) according to

Claim 1 is represented by Formula (4) wherein M is Cu:

$$R_{13}$$
 R_{16}
 R_{16}
 R_{1}
 R_{16}
 R_{16}
 R_{16}
 R_{16}
 R_{16}
 R_{16}
 R_{17}
 R_{18}
 R_{19}
 R_{10}
 R_{19}
 R_{10}
 R_{10}

 \pm wherein R₁ to R₁₆ mean the same as in Formula (1) \pm .

- 3. (Canceled)
- 4. (Currently amended) The phthalocyanine colorant according to any one of Claims claim 1 to 3, wherein in each of combinations of R_2 and R_3 , R_6 and R_7 , R_{10} and R_{11} , and R_{14} and R_{15} , one member of each combination is a hydrogen atom, and the other is an unsubstituted sulfamoyl group represented by Formula (2), a substituted sulfamoyl group represented by Formula (3) or a hydrogen atom, and among R_2 , R_3 , R_6 , R_7 , R_{10} , R_{11} , R_{14} and R_{15} , at least one is an unsubstituted sulfamoyl group and at least one is a substituted sulfamoyl group represented by Formula (3).

5. (Canceled)

- 6. (Canceled)
- 7. (Canceled)
- 8. (Currently amended) The phthalocyanine colorant according to Claim 1, wherein content of $\frac{1}{2}$ the colorant of Formula (1) is at least 60% based on the total amount of colorants.
- 9. (Currently amended) The phthalocyanine colorant according to any one of Claims claim 1 to 8, wherein the colorant of Formula (1) is obtained by subjecting the phthalocyanine colorant or the salt thereof represented by Formula (6) to a reaction with a chlorinating reagent to convert a sulfonic acid group to a chlorosulfonic acid group, followed by further reaction with an organic amine represented by Formula (X) as shown below and an amidating reagent:

fin Formula (6), wherein M represents a hydrogen atom, a metal atom, a metal oxide, a metal hydroxide or a metal halide; L represents a hydrogen atom, an alkali metal ion, an alkali earth metal ion, an onium ion of an organic amine or an ammonium ion; a, b, c and d is 0 or 1, and the sum thereof is an integer of 2 to 4 -}:

$$\begin{array}{c|c}
 & Y \\
 & N \\
 & N \\
 & N \\
 & R_{17} \\
 & R_{18} \\
 & N \\
 & Z
\end{array}$$
(X)

tin Formula (X), wherein R₁₇ and R₁₈ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, and a substituted or unsubstituted alkenyl group; A represents an alkylene group having 1 to 4 carbon atoms a crosslinking group, and adjacent R₁₇, R₁₈ and A may form a ring by bonding together; any one of Y and Z each independently represents a halogen atom, a hydroxyl group, a sulfonic acid group, a carboxyl group, an amino group, a substituted or

unsubstituted alkoxy group, a substituted or unsubstituted eyeloalkyloxy group, a substituted or unsubstituted aryloxyl group, a substituted or unsubstituted heterocyclic oxy group, a substituted or unsubstituted alkenyloxy group, a substituted or unsubstituted or a C1 - C6 alkylamino group substituted with a sulfonic acid group or a carboxyl group and the other is a phenylamino group substituted with a sulfonic acid group or a carboxyl group or a naphthylamino group substituted with a sulfonic acid group or a carboxyl group, a substituted or unsubstituted cycloalkylamino group, a substituted or unsubstituted arylamino group, a substituted or unsubstituted heterocyclic amino group, a substituted or unsubstituted alkenylamino-group, a substituted or unsubstituted dialkylamino group, a substituted or unsubstituted alkylthio group, a substituted or unsubstituted arylthio group, a substituted or unsubstituted heterocyclic thio group, a substituted or unsubstituted alkenylthio group, provided that at least one of Y and Z is a group having an ionic and hydrophilic group as a substituent.].

- 10. (Canceled)
- 11. (canceled)
- 12. (Canceled)
- 13. (Currently amended) The phthalocyanine colorant

according to claim 9 any one of Claims 10 to 12, wherein the metallic compound is a copper compound.

- 14. (Currently amended) An ink characterized by comprising, as a colorant component, the phthalocyanine colorant according to any one of Claims 1, 2, 4, 8, 9 or to 13.
- 15. (Currently amended) The ink according to Claim 14, which comprises comprising the phthalocyanine colorant according to Claim 1 and an organic solvent.
 - 16. (Canceled)
- characterized by using the ink according to any one of Claims 14 to 16 as at least one kind in an ink-jet printer which uses at least two kinds of cyan inks having different colorant concentrations, wherein one of them is an ink comprising the phthalocyanine colorant according to Claim 1 or an ink comprising the phthalocyanine colorant according to Claim 1 and an organic solvent.
- 18. (Currently amended) An ink-jet recording A method for ink-jet recording, comprising jetting ink droplets characterized by using, as an ink, the ink or the ink set according to any one of Claims 14 to 17, in an ink-jet recording method wherein recording is conducted onto a recording material by jetting ink droplets in response to

recording signals, wherein the ink comprises the phthalocyanine colorant according to claim 1.

- 19. (Currently amended) The <u>method for</u> ink-jet recording method according to Claim 18, wherein the recording material is a sheet for information transmission.
- 20. (Currently amended) The <u>method for</u> ink-jet recording method according to Claim 19, wherein the sheet for information transmission is a surface-treated sheet and a sheet having an ink image receiving layer which contains white inorganic pigment particles on a backing material.
- 21. A container comprising the an ink comprising the phthalocyanine colorant according to Claim 1 or the ink set according to any one of Claims 14 to Claim 17.
- 22. (Original) An ink-jet printer comprising the container according to Claim 21.
- 23. (Currently amended) A colored product which is colored with a phthalocyanine colorant according to claim 1, the an ink comprising the phthalocyanine colorant according to Claim 1 or the ink set according to any one of Claims 14 to claim 17.
- 24. (Currently amended) A method for producing a phthalocyanine colorant characterized by being obtained by subjecting derivatives of 4-sulfophthalic acid selected from the group consisting of 4-sulfophthalic acid, 4-

sulfophthalic anhydride, 4-sulfophthalimide, 4-sulfophthalonitrile, 4- or 5-sulfo-2-cyanobenzamide, 5-sulfo-1,3-diiminoisoindolin and salts thereof or reaction of said derivatives of 4-sulfophthalic acid to reaction with themselves or subjecting a—said derivative of 4-sulfophthalic acid to reaction with a derivative of a phthalic acid (anhydride) in the presence of a copper compound to obtain a compound or a salt thereof, which is reacted with a chlorinating reagent to convert a sulfonic acid group to a chlorosulfonyl group, followed by further reaction with an organic amine represented by the following above Formula (X)

wherein in Formula (X), R₁₇ and R₁₈ each independently represent a hydrogen atom; A represents an alkylene group having 1 to 4 carbon atoms; any one of Y and Z represents an amino group, or a C1 - C6 alkylamino group substituted with a sulfonic acid group or a carboxyl group and the other is a phenylamino group substituted with a sulfonic acid group or a naphthylamino group substituted with a sulfonic acid group or a carboxyl group,

and an amidating reagent.

25. (Currently amended) A phthalocyanine colorant which has not less than 60% of a compound substituted at the β -position and not more than 40% of a compound substituted at the α -position in a phthalocyanine colorant represented by Formula (14) as shown below:

fwherein M represents a hydrogen atom, a metal atom, a metal oxide, a metal hydroxide or a metal halide; 1 includes 0 and lower than 1; m is not smaller than 0.5 and not larger than 3; n is not smaller than 1 and not larger than 3.5, and the sum of 1, m and n is not smaller than 2 and not larger than 4; R₁₇ and R₁₈ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, and a

substituted or unsubstituted alkenyl group; Α represents an alkylene group having 1 to 4 carbon atoms-a erosslinking group, and adjacent R₁₇, R₁₈ and A may form a ring by bonding together; any one of Y and Z represents each independently represent a halogen atom, a hydroxyl group, a sulfonic acid group, a carboxyl group, an amino group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted eyeloalkyloxy group, a substituted or unsubstituted aryloxyl group, a substituted or unsubstituted heterocyclic oxy group, a substituted or unsubstituted alkenyloxy group, a substituted or unsubstituted or a C1 - C6 alkylamino group substituted with a sulfonic acid group or a carboxyl group and the other is a phenylamino group substituted with a sulfonic acid group or a carboxyl group or a naphthylamino group substituted with a sulfonic acid group or a carboxyl group., a substituted or unsubstituted eyeloalkylamino group, a substituted or unsubstituted arylamino group, a substituted or unsubstituted heterocyclic amino group, a substituted or unsubstituted alkenylamino group, a substituted or unsubstituted dialkylamino group, a substituted or unsubstituted alkylthio group, a substituted or unsubstituted arylthio group, a substituted or unsubstituted heterocyclic thio group, a substituted or

unsubstituted alkenylthio group, provided that at least one
of Y and Z is a group having an ionic and hydrophilic group
as a substituent.

- 26. (Canceled)
- 27. (Canceled)
- (Currently amended) The phthalocyanine colorant according to Claim 25, wherein M represents a copper atom; A represents an alkylene group having 1 to 4 carbon atoms a divalent crosslinking group having carbon atoms of 1 to 6; l includes 0 and smaller than 1; m is not smaller than 0.5 and not larger than 3; n is not smaller than 1 and not higher than 3; and the sum of 1, m and n is 2 to 4; both R_{17} and R_{18} represent hydrogen atoms; any one of Y and Z each independently represent represents an amino group, --a substituted or unsubstituted or a C1 - C6 alkylamino group substituted with a sulfonic acid group or a carboxyl group and the other is a phenylamino group substituted with a sulfonic acid group or a carboxyl group or a naphthylamino group substituted with a sulfonic acid group or a carboxyl group. -- a substituted or unsubstituted arylamino group, a substituted or unsubstituted dialkylamino group, provided that at least one of Y and Z is a group having an ionic and hydrophilic group as a substituent.